

Inventors: Zhou and Ehlert  
Serial No.: 10/016,481  
Filed: November 1, 2001  
Page 2

(a) the 10 conserved cysteine residues of SEQ ID NO:3, and  
(b) from 0 to 9 of C-terminal amino acids 78 to 86 of  
SEQ ID NO:3,

wherein amino acids 1 to 6 of said antagonist do not consist  
of amino acids AVITGA (SEQ ID NO:21).

54. (New) The isolated prokineticin receptor antagonist of  
claim 53, comprising 6 or more amino acids N-terminal to the  
first conserved cysteine residue.

55. (New) The isolated prokineticin receptor antagonist of  
claim 53, comprising 7 or more amino acids N-terminal to the  
first conserved cysteine residue.

31 56. (New) The isolated prokineticin receptor antagonist of  
claim 55, wherein said 7 or more amino acids are MAVITGA  
(SEQ ID NO:20).

57. (New) The isolated prokineticin receptor antagonist of  
claim 53, comprising SEQ ID NO:18.

58. (New) The isolated prokineticin receptor antagonist of  
claim 57, consisting of SEQ ID NO:18.

59. (New) The isolated prokineticin receptor antagonist of  
claim 53, comprising 5 or fewer amino acids N-terminal to said  
first conserved cysteine residue.

Inventors: Zhou and Ehlert  
Serial No.: 10/016,481  
Filed: November 1, 2001  
Page 3

60. (New) The isolated prokineticin receptor antagonist of claim 59, wherein said 5 or fewer amino acids consists of VITGA (SEQ ID NO:22).

61. (New) The isolated prokineticin receptor antagonist of claim 53, comprising SEQ ID NO:16.

62. (New) The isolated prokineticin receptor antagonist of claim 61, consisting of SEQ ID NO:16.

63. (New) The isolated prokineticin receptor antagonist of claim 53, wherein amino acid residues that differ from residues 7 to 77 of SEQ ID NO:3 are conservative substitutions thereof.

64. (New) The isolated prokineticin receptor antagonist of claim 53, wherein amino acid residues that differ from residues 7 to 77 of SEQ ID NO:3 consist of the corresponding residues from SEQ ID NO:6.

65. (New) The isolated prokineticin receptor antagonist of claim 53, comprising amino acids 7 to 77 of SEQ ID NO:3.

66. (New) The isolated prokineticin receptor antagonist of claim 53, comprising amino acids 7 to 77 of SEQ ID NO:13.

67. (New) The isolated prokineticin receptor antagonist of claim 53, further comprising a tag.

31  
Cont

Inventors: Zhou and Ehlert  
Serial No.: 10/016,481  
Filed: November 1, 2001  
Page 4

68. (New) The isolated prokineticin receptor antagonist of claim 53, which is detectably labeled.

69. (New) An isolated prokineticin receptor antagonist, comprising an amino acid sequence at least 80% identical to amino acids 7 to 77 of SEQ ID NO:6, said sequence comprising;

(a) the 10 conserved cysteine residues of SEQ ID NO:6, and  
(b) from 0 to 4 of C-terminal amino acids 78 to 81 of  
SEQ ID NO:6,

wherein amino acids 1 to 6 of said antagonist do not consist of amino acids AVITGA (SEQ ID NO:21).

70. (New) The isolated prokineticin receptor antagonist of claim 69, comprising 6 or more amino acids N-terminal to the first conserved cysteine residue.

71. (New) The isolated prokineticin receptor antagonist of claim 69, comprising 7 or more amino acids N-terminal to the first conserved cysteine residue.

72. (New) The isolated prokineticin receptor antagonist of claim 71, wherein said 7 or more amino acids comprise MAVITGA (SEQ ID NO:20).

73. (New) The isolated prokineticin receptor antagonist of claim 69, comprising 5 or fewer amino acids N-terminal to the first conserved cysteine residue.

B1  
Cont

Inventors: Zhou and Ehlert  
Serial No.: 10/016,481  
Filed: November 1, 2001  
Page 5

74. (New) The isolated prokineticin receptor antagonist of claim 73, wherein said 5 or fewer amino acids consists of VITGA (SEQ ID NO:22).

75. (New) The isolated prokineticin receptor antagonist of claim 69, wherein amino acid residues that differ from residues 7 to 77 of SEQ ID NO:6 are conservative substitutions thereof.

76. (New) The isolated prokineticin receptor antagonist of claim 69, wherein amino acid residues that differ from residues 7 to 77 of SEQ ID NO:6 consist of the corresponding residues from SEQ ID NO:3.

77. (New) The isolated prokineticin receptor antagonist of claim 69, comprising amino acids 7 to 77 of SEQ ID NO:6.

78. (New) The isolated prokineticin receptor antagonist of claim 69, comprising amino acids 7 to 77 of SEQ ID NO:14.

79. (New) The isolated prokineticin receptor antagonist of claim 69, further comprising a tag.

80. (New) The isolated prokineticin receptor antagonist of claim 69, which is detectably labeled.

81. (New) A pharmaceutical composition, comprising the isolated antagonist of claim 53 and a pharmaceutically acceptable carrier.

Inventors: Zhou and Ehlert  
Serial No.: 10/016,481  
Filed: November 1, 2001  
Page 6

82. (New) A pharmaceutical composition, comprising the isolated antagonist of claim 69 and a pharmaceutically acceptable carrier.

83. (New) A nucleic acid molecule encoding the antagonist of claim 53.

84. (New) An expression vector comprising the nucleic acid molecule of claim 83 operatively linked to a promoter of gene expression.

85. (New) A host cell comprising the expression vector of claim 84.

B<sup>1</sup>  
86. (New) A method of preparing the isolated antagonist of claim 53, comprising culturing the host cell of claim 85 so as to express said antagonist, substantially purifying said antagonist, and refolding said antagonist.

87. (New) A nucleic acid molecule encoding the antagonist of claim 69.

88. (New) An expression vector comprising the nucleic acid molecule of claim 87 operatively linked to a promoter of gene expression.

89. (New) A host cell comprising the expression vector of claim 88.